

KSARC NEWS

VOLUME 3, NO. 3, APRIL 2002

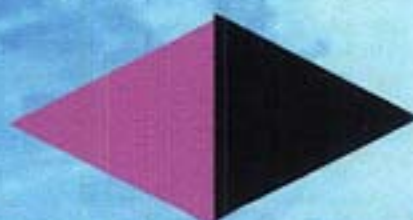
KIKA DE LA GARZA SUBTROPICAL AGRICULTURAL RESEARCH CENTER
A RESEARCH LABORATORY OF THE AGRICULTURAL RESEARCH SERVICE
OF THE U.S. DEPARTMENT OF AGRICULTURE

KSARC Scientist and Technician to Publish Article

"Flying in the Face of Grapefruit", a catchy title with an interesting twist on how Mexican fruit flies find host fruit to lay eggs in. Dr. David Robacker and Technician, Ms. Ivich Frasier, started a project to investigate host fruit as a source of attractants. What they found was very surprising.

They discovered that Mexican fruit flies do not even recognize grapefruit, one of their favorite cultivated hosts, unless they previously had experience with it in which they learned that grapefruit is actually a host! O.K., thought Dr. Robacker (better known at KSARC as Dr. Dave), it makes sense because grapefruit is not native to the new world, so the flies would not have developed an instinctive response to it. The two then thought that the Mexican fruit fly certainly

would find its native host, the yellow chapote, that grows in mountain canyons in northern Mexico, highly attractive. Not so. The flies also had to learn that chapote is a host, again by experiencing it as adults. What these results mean is that Mexican fruit flies that emerge from the ground do not automatically go looking for grapefruit or chapote to lay eggs. Instead, they fly around and look for whatever type of fruit is available. They inspect it and attempt to lay eggs. Some, like grapefruit and chapote, they find acceptable and continue to search for more. Their results reinforce the cultural practice that is supposed to be enforced here in the Valley to remove excess citrus (Cont'd. on Pg. 2)



Look Who Art Ran Into To!

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Our very own Mr. Art Cavazos from the KSARC Honey Bee Research Group was on a business trip to College Station in March when he just happened to run into George Bush, Senior, at the Bush Library. His reaction was "{Expletive! Expletive!}". (Use your imagination.) Art reports that the former President was bass fishing in the pond behind the library when Art spotted him. It was hard to contain Art long enough to get the story out of him when he brought the photo over, but he did manage to tell me that the former President was talkative, friendly, and extremely interested in Art's bee work.

Annette Manzanares

KSARC SCIENTIST AND TECHNICIAN TO PUBLISH ARTICLE

(Continued from Page 1)
from trees after harvest. Fruit left on trees not only provide off-season breeding grounds, but also offer a school for newly emerged flies to learn that grapefruit and other citrus are usable hosts. Once learning this, there is no need for them to look elsewhere for hosts. They can just stay right where they started and infest citrus

Look for the article to appear in an upcoming issue of Agricultural Research Magazine.



NEW ARRIVAL FOR THE VALLADARES'



A beautiful, healthy baby boy, Roberto Jesus Valladares, was born to Victor and Abby Valladares on February 8, 2002. Roberto weighed in at 7 lbs. and 10 ozs. and was 20 3/4 inches long. Congratulations and best wishes to the Valladares family!



Man's Best Friend

by Annette Manzanares

Spring has sprung and so have flowers, shrubs, and baby animals. A year of heroes and heroines behind us and yet more in the making causes me to reflect on another type of hero -- one with four legs, a snout and a tail. There is much to be learned from canines -- they have come to signify one of the most highly trained army of search-and-rescue animals available to man. During the rescue effort of the 9-11 disaster, search dogs and their handlers pulled five people alive from the burning heaps of bent steel and crushed concrete.

Frantically searching for survivors, these four-legged heroes have become working members of the round-the-globe rescue efforts. They alert us to intrusions; they become the eyes and ears for the handicapped; they provide companionship for the lonely and elderly, and most importantly, they become members of our family.

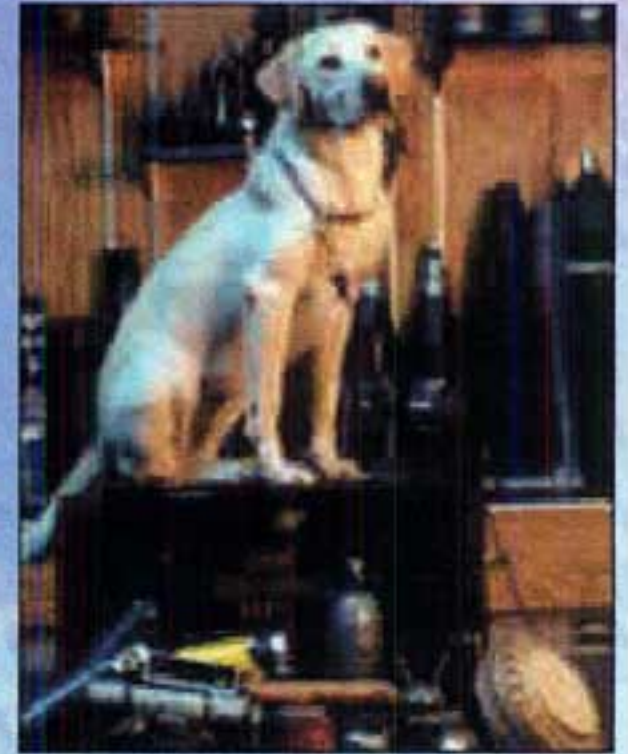
During wartime, America's war dogs were trained to recognize booby traps, mine tunnels, and weapons caches. They warned troops about

ambushes. They saved lives by dragging wounded soldiers to safety. America's war dogs prevented over 10,000 casualties in Vietnam alone, and bravely served our country

in "Operation Desert Storm" as well as World War II. Yet, many of these canines were either euthanized or left to unknown fates.

We've heard about rescue dogs and how their amazing tracking abilities have found lost people and saved lives. But, did you ever imagine that dogs could be trained to sniff out cancer? In Tallahassee, Florida, a dermatologist teamed up with a retired police sergeant in an experiment to train a police dog to sniff out melanoma cells. The dog's name is "George", a former bomb-sniffing standard schnauzer who once worked with the Tallahassee Police Force. The researchers first trained George to recognize the cancer cells in a test tube, then under bandages on a person's body, and finally in volunteer patients who had cancer. After being given the command,

(Cont'd. on Pg. 4)



Viva la France!



Dr. Walker Jones, Research Leader of the Beneficial Insects Research Unit, KSARC, was invited by the U.S. Embassy, Paris, France, to give the presentation, "Biological Control of Pierce's Disease Vectors" at the "Symposium Sur Deux Maladies de la Vigne: La Flavescence Doree et la Maladied de Pierce: at Montpellier, France on March 14-15, 2002.

Man's Best Friend Continued from Pg. 3

"Show me", George would sniff around the patient and finally place his paw on the tumor location. After being trained, George was able to sniff out cancer in a person's body with close to 100% accuracy.

Dogs are icebreakers for chaplains and mental health professionals. When people are grieving, they pet these animals and release their grief which opens the door for help. When a vital, vibrant person is diagnosed with a chronic illness, oftentimes they feel like their life has stopped. Dogs provide patients with the support they need to restore their dignity and help them lead more independent lives. No drug, no human doctor alone, could accomplish the miracles of healing achieved by the partnership of dog and human.



Dr. Guy Hallman Visits Australia

Dr. Guy Hallman, Research Entomologist in the Crop Quality and Fruit Insects Research Unit of KSARC, was invited by the Food and Agricultural Organization of the United Nations and the International Atomic Energy Agency to lecture in an Association of Southeast Asian Nations training workshop on the use of irradiation to ensure quarantine security in trade in food and agricultural communities. The workshop was held in Canberra, Australia, March 18-22, 2002.



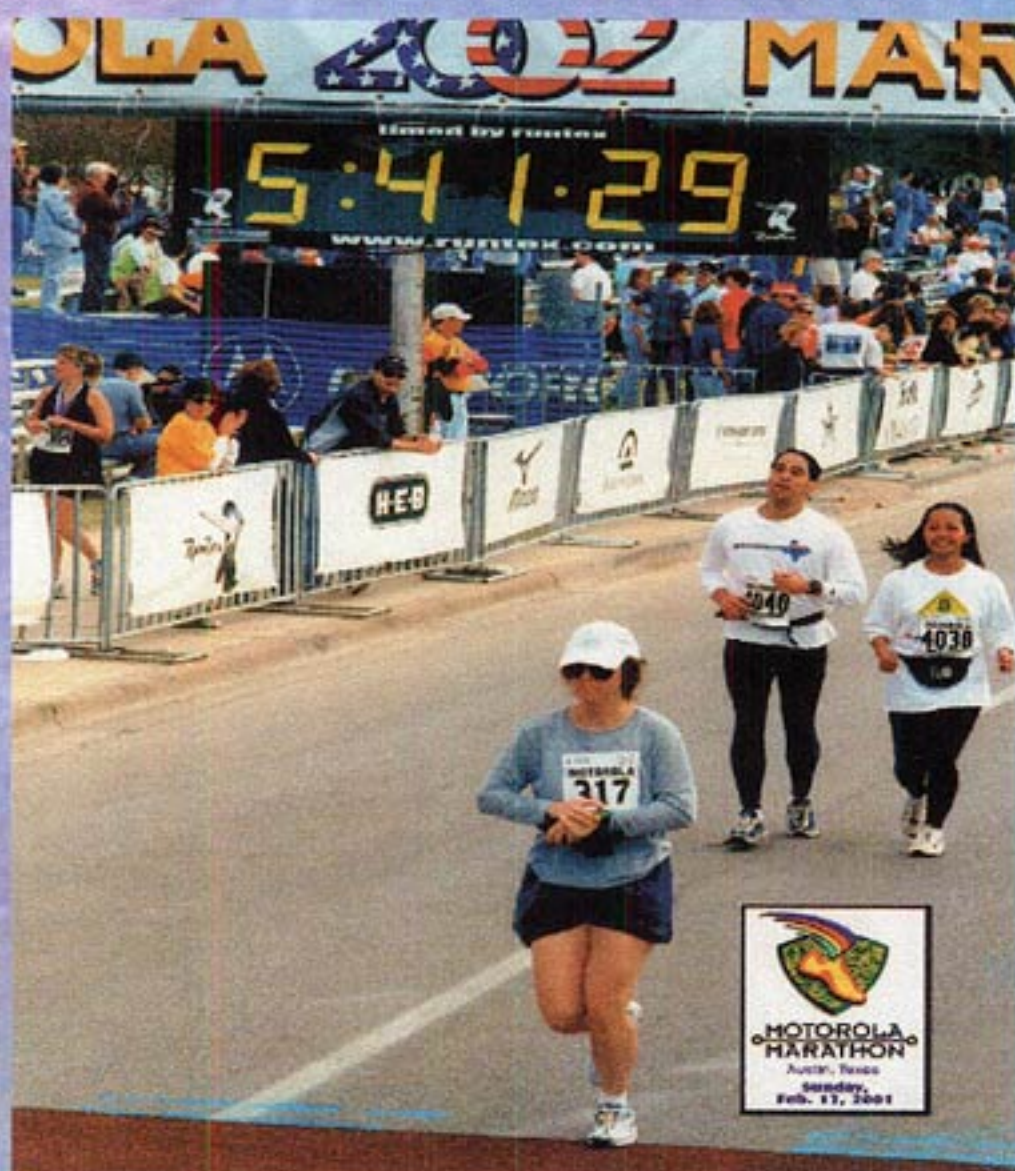
This promising treatment, now only used for 8 fruits shipped from Hawaii to the mainland USA and for guavas and sweetpotatoes shipped from Florida to Texas and California, is poised to begin being employed to ship fruits from Australia and Hawaii to New Zealand possibly this year, which could mark the first continuous international use of irradiation as a quarantine treatment on fresh commodities.

AWARDS



Mr. David Hanna of the Crop Quality and Fruit Insects Research Unit, KSARC, was the recipient of a Spot Cash award recommended by Dr. Fumiomi Takeda of the USDA-ARS, Kearneysville, WV, for locating the Harry and David shipping boxes used to send strawberries to Dr. Gene Lester's Laboratory.





GO PATTI!

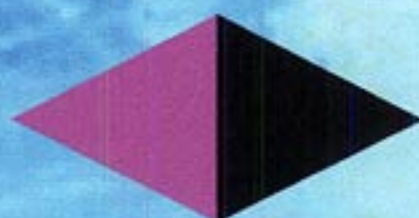
Dr. Patti Elzen (left) of the Beneficial Insects Research Unit-Honey Bee Group, ran the Austin Marathon in February, finishing the 26.2 mile race in 5 hours and 38 minutes, one hour faster than her previous marathon. Rumor has it that she's planning on doing the Disney Marathon in January. We'll all be rooting for you, Patti!

WELCOME TO KSARC



KSARC cordially welcomes our new employees:

Mr. Eduardo Saldivar started working on March 11, 2002, with the BIRU as a Permanent Biological Science Technician under the supervision of Dr. Katherine Aronstein. Mr. Julio Martinez, Jr. started working on March 11, 2002 with the Crop Quality & Fruit Insects Research Unit on an LA-180 appointment, as a Biological Science Technician under the supervision of Dr. Robert Mangan. Mr. Javier Cavazos, Jr., will start working with the BIRU under the Student Temporary Employment Program (STEP) as a Biological Science Technician under the supervision of Dr. Lambert Kanga.



Get Out of the Kitchen Fast! with Mediterranean Shrimp

Bring large pot salted water to boiling for pasta. Combine 26-ounce jar marinara sauce, 3 tablespoons capers, 2 mashed canned anchovy fillets and 1/4 teaspoon red pepper flakes in medium-size saucepan; cook over medium heat 10 minutes. Stir in 3 tablespoons chopped fresh parsley. Keep sauce warm. Meanwhile, cook 1 pound spaghetti following package directions. Heat 2 tablespoons olive oil in large skillet. Season 1 1/2 pounds cleaned jumbo shrimp with 1/4 teaspoon salt and 1/4 teaspoon pepper. Add shrimp to skillet; saute' over medium-high heat 2 minutes on each side, until cooked through. Toss pasta with sauce. Arrange Shrimp on top. Makes 6 servings at a cost of \$3.22 each.

Nutrient value per serving:

492 calories, 10 g fat (1 g saturated), 30 g protein, 70 g carbohydrate, 5 g fiber, 1206 mg sodium, 163 mg cholesterol.



Birthdays March/April

March

Mario Alaniz
Jesus Caballero
David Escobar
Teich Fraser
Alfredo Gomez
Henry Graham
David Hanna
Noe Hernandez
Noelia Martinez
Patrick Moran
Robert Rivas
Patricia Silva
Carlos Solis

April

Mariana Gonzalez
Martin Porras
Sandra Ramos
William Rubink
Lisa Saenz



Research



Dr. Walker Jones, Research Leader with the KSARC Beneficial Insects Research Unit, will host the annual meeting of the Biological Control Panel of the North American Plant Protection Organization (NAPPO). It will be held May 15-16, 2002 at the Weslaco Research Center with a side trip to Moore Air Base, Mission. The Panel is composed of two members each from the three member countries, the U.S.A., Canada, and Mexico. NAPPO panels are charged with carrying out specific tasks requested by the NAPPO Executive Director. The Biological Control Panel is currently developing importation and release protocols for different classes of natural enemies for target arthropod pests and weeds. Currently, each country maintains different guidelines. The Biological Control Panel is featured in the latest NAPPO Newsletter under "Faces of NAPPO" at <http://www.nappo.org/Newsletter/2002/march-02-eng.html>.



Drs. Don Thomas and Dave Robacker, and Mr. Bill Warfield of KSARC just completed an 8-day trip to southern Mexico where they met with the agricultural officials in the State of Campeche who are working on the Brown Citrus Aphid problem. The Brown Citrus Aphid is an invasive species attacking citrus which is particularly insidious because it is the vector of the Citrus Tristeza virus. This virus causes a disease called Quick Decline of Citrus. The group was escorted to sites where infestations of the aphid, which they call "pulgonos" were particularly heavy. There is a Mexican "dicho" that the only cure for la tristeza is cerveza and Mariachi, and that appears to be true in this case as well. The Brown Citrus Aphid has already invaded Florida and it appears to be on its way to Texas. (Written and Submitted by Dr. Don Thomas, Kika de la Garza Subtropical Agricultural Research Center, Weslaco, TX. Further information on the content may be obtained by calling Dr. Thomas at (956) 447-6315.)



Consider the Alternative by Dina Suarez

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I've recently had the privilege of consulting with an alternative medicine doctor for help for a family member whose medical problems include diabetes, high blood pressure, and heart problems. The main problem at this time is an ulcer on the foot which has not healed. This family member has been to several physicians here in the Valley for different sorts of treatments for his foot, but so far, there haven't been any positive results. The ulcers are not healing due to his diabetes and poor circulation. I was referred to an MD who's been practicing alternative medicine for several years by a friend of mine. I gave the doctor a brief description of my family member's health problems and the prescriptions he is currently taking. He then returned my call the following day with a list of vitamins and herbal medicines which promised a way to a healthy recovery. Throughout the conference, this doctor shared some advice that I'd like to pass along to others. I've also included some comments from Dr. Joseph Mercola, who can be found on the Web.

The Alternative Medicine Doctor advised me to replace any sort of cookware, flatware or dishware in the form of plastics or styrofoam with stainless steel and/or porcelain, but those which have no components containing aluminum or iron. When heat comes in contact with plastics and/or styrofoam, toxic chemicals are released which mix into our food and drink. Within time of ingesting such toxic chemicals, our bodies produce various forms of cancers such as uterine fibroids, breast and prostate cancer. Eventually, fibroids do become cancerous.

In traditional medicine, the myth is that fibroids come with age, but the use of these plastics and styrofoam are part of the culprits to blame for such diseases. He also advised never heating food and/or drink in plastics or styrofoam containers in the microwave. He recommended using porcelain dishes with porcelain covers. Choose porcelain carefully and try to select one that does not contain a great deal of lead, which is of course, another toxic chemical.

Most of us use antiperspirants. But did you know that most antiperspirants contain an ingredient detrimental to our health? Aluminum silicate is the active ingredient in most antiperspirants which is a common cause of Alzheimer's Disease. As most women shave their underarms, they don't realize that the broken skin allows the aluminum silicate to enter and travel faster through our bloodstream. Both men and women are susceptible to Alzheimer's Disease, so consider switching to a natural antiperspirant like one containing potassium, or just use a deodorant.

Water is a major essential for humans. Try not to use tap water for cooking, drinking, or bathing. Drink bottled water or place a filtration system in your home. If this is not possible, at least use a filter to remove chlorine in the sink and shower. While using the hot water in the shower, our pores open and chlorine and other contaminants enter into our bodies and attack our immune system and vital organs. Our skin is the largest organ we have, so be mindful to what it is exposed to, including certain detergents, lotions and pesticides.

Mercury is another culprit for various diseases. Remember when our dentists would fill our teeth with silver? But those times are gone, and most often today, the fillings consist of mercury. If you do have fillings containing mercury, check with a dental professional who specializes in abstracting these sort of fillings and replace with either porcelain or gold. Also, avoid certain seafood containing mercury such as shark, mackerel, and swordfish. Dr. Mercola on the Web recommends eating "safe" fish, some of which are Summer Flounder, Wild Pacific Salmon, Croaker, Sardines, Haddock, and Tilapia. These and other recommendations may be found on Dr. Mercola's website.

Remember those television ads that warned you to limit your intake of eggs to one or two per week? Such ads implied that too many eggs eaten daily meant high cholesterol levels, therefore your risk for heart disease becomes higher. The Alternative Medicine Doctor I had the phone consultation with disclosed that researchers had used powdered eggs instead of real eggs in their study which concluded "high in cholesterol". Real eggs are actually good for you and are full of nutrients such as choline, lutein, and zeaxanthin. "Choline is a dietary component essential for normal function of all cells," states Dr. Zeisel, on a commentary found on the Dr. Mercola website. Lutein and zeaxanthin are two carotenoids which may help protect your eyes from ultraviolet light. He advises that when preparing eggs, limit the amount of oil and avoid bacon and other fatty foods. Be wise and invest a little more on organic and hormone-free eggs which do make a huge difference in healthy eating. Include organic and hormone-free dairy products and meats for long-term good health.

The Alternative Doctor's patients include people with a diversity of illnesses such as diabetes, high blood pressure, infections, heart problems, and cancer. He has helped patients by using alternative therapy medicine by building up the body's immune system, as opposed to reducing it. (Continued on Page 8)

KSARC AG-SCIENCE DAY IN PHOTOS



Dr. Jerry Quisenberry, KSARC Center Director, listens to Dr. Patti Elzen's presentation.



Dr. Kate Aronstein of the KSARC Beneficial Insects Research Unit, Honey Bee Research, poses with The American Honey Queen.



Ms. Colleen Henson, The American Honey Queen, poses with Mr. Art Cavazos of KSARC.



Mr. Arturo Cavazos (left) with Dr. Bill Rubink displaying Honey Bee presentations.



Drs. Patti Elzen, Walker Jones and Bill Rubink at Ag-Science Day display.

Safety and Health by Ed Stein



With the approaching summer months comes the potential of heat-related illnesses due to high temperatures and humidity. The U.S. Department of Labor and the Occupational Safety and Health Administration (OSHA) want to make sure employers and their workers have the information they need to cope with extreme heat during the warm weather season. Here are OSHA's ten suggestions to employers for helping workers stay cool in hot workplace environments. 1. Encourage workers to drink plenty of water, even if they are not thirsty. Avoid alcohol, coffee, tea, and caffeinated soft drinks that contribute to dehydration. 2. Help workers adjust to the heat by assigning a lighter workload and longer rest periods for the first five to seven days of intense heat. 3. Encourage workers to wear lightweight, loose-fitting, light colored clothing. 4. Use general ventilation and spot cooling at points of high heat production. Good air flow increases evaporation and cooling of the skin. 5. Learn to spot the signs of heat stroke, which can be fatal. The symptoms are severe headaches, mental

confusion/loss of consciousness, slushed face, and hot, dry skin. If anyone has stopped sweating, seek medical attention immediately. 6. Train first-aid workers to recognize and treat the signs of heat stress. 7. Consider a worker's physical condition when determining fitness to work in hot environments. Obesity, lack of conditioning, pregnancy, and inadequate rest can increase susceptibility to heat stress. 8. Alternate work and rest periods, with longer rest periods in a cooler area. Shorter, but frequent, work-rest cycles are best. 9. Certain medical conditions, such as heart conditions, or treatments like low-sodium diets and some medications, increase the risk from heat exposure. 10. Monitor temperatures, humidity, and workers' responses to heat at least hourly, if possible.

OSHA—Tips on Reducing the Risk of Heat Stroke

Consider the Alternative by Dina Suarez

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This Doctor has helped patients become cancer-free, even at Stage 4 of the disease! Amazing! Considering alternative medicine over traditional medicine is a big plus. But all of us should be conscientious about the right foods to eat and by adding exercise to our daily routines. Heed the warnings and take care of your body, because you only live once. You can click on www.mercola.com for more information from Dr. Mercola.

NEWS FROM OUR CENTER DIRECTOR

BY DR. JERRY QUISENBERRY

Well KSARC Ag-Science Day was a success due in no small part to our Chairman Fred Gomez. Fred and his committees worked long and hard. KSARC staff showed off our Research Programs and ran a smooth operation that all can be proud of. Hope you got to visit with the National Honeybee Queen. She is a lovely young lady with a wonderful personality. All of our staff was involved in the event (you looked great in your RED shirts!). You know we do have a fine looking group of people working at KSARC. As you read through the newsletter you will notice that Annette just gets better and better with each issue.

During the last week of April, I along with Allan Showler and Raul Cantu attended a number of meetings with cotton farmers held by Rio Farms, Inc. Allan and Raul were on the program and made very good presentations about trapping boll weevils. Being a farmer today is tough. Low prices, no rain, little irrigation water and yet their attitudes are good and they are, for the most part, still very optimistic about the future. It did me a lot of good just being around them. Talking about our friends at Rio Farms, Dale Murden is in charge of operations while Andy Scott is the Director of Research. These two have the pulse of the Ag community in the Lower Rio Grande Valley and if you need information about the farming community they are the ones to ask. Our lease for 160 acres of land from Rio Farms has just about cleared all the hurdles, at least that's what Mari tells me. If that's the case, Mari got it done in record time. I took Olivia, Mari, Andy, Gene Lester and Bob Mangan out to see the lease and they were impressed (and its hard to impress that crew). The 160 acres are just North of Delta Lake (in fact it bounds on the lake) and it is beautiful.

Made a trip with Bob Mangan, Walker Jones, and Joe Bradford to Beltsville to discuss with our National Program Staff the research programs at KSARC. Bob and Joe made wonderful presentations. In time we will see how effective they were.

Accolades go to our Remote Sensing Group on their work with the citrus industry on the black fly outbreak. They were able to identify every tree in the Valley that was infested with black flies. This allowed individual trees to be treated. This approach is much better than blanket spraying all citrus.

Don't forget that your KSARC Social Club is selling caps and shirts. Buy one or two and you will be helping the club take care of the social needs of KSARC. Remember the story about all work and no play makes us very dull.

Just the Facts by Mari Gomez

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Thrift Savings Plan (TSP) Open Season

- Open season for TSP is May 15 - July 31, 2002.
- Begin contributing to the TSP.
- Change the amount of future payroll contributions.
- Terminate TSP contributions.
- FERS employees can contribute up to 12% of their base pay.
- CSRS employees can contribute up to 7% of their base pay.
- There are 5 TSP investment funds.
- For more information visit www.tsp.gov or call Noelia Martinez.

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ARS Mission

The Agricultural Research Service conducts research to develop and transfer solutions to agricultural problems of high national priority and provides information access and dissemination to:

- ensure high-quality, safe food and other agricultural products
- assess the nutritional needs of Americans
- sustain a competitive agricultural economy
- enhance the natural resource base and the environment, and
- provide economic opportunities for rural citizens, communities, and society as a whole.

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Long Term Care Insurance

- Who should purchase long term care insurance and who should not?
 - What should you look for in a long term care insurance policy?
 - How do you decide how much insurance you should buy?
 - How does the Federal Long Term Care Insurance Program fit into this picture?
 - Answers to these questions will be discussed during a satellite broadcast on May 15, 2002 at 11:30 AM.
 - Open season for the Federal Long Term Care Insurance Program begins on July 1, 2002 and ends on December 31, 2002.
- For more information you can call a certified long term care insurance specialist at 1-800-582-3337 or go to www.ltcfed.com and www.opm.gov/insure/ltc